UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

medley 6.1

APR 23 1992

4WD-NSRB

Ms. Mary Jane Norville
King and Spalding
191 Peachtree Street
Atlanta, Georgia 30303-1763

RE: Medley Farm Superfund Site, Gaffney, South Carolina
Approval of Initial Remedial Design (RD) Documents

Dear Ms. Norville:

EPA has completed its review of the RD documents received on March 9, 1992: the Technical Memorandum Regarding Treatability Studies, Field Sampling and Analysis Plan, Quality Assurance Project Plan, and the Health and Safety Plan. By this letter, the Agency approves these plans and directs that work begin on the RD Work Plan. In accordance with the Consent Decree, the RD Work Plan will be due on or before June 23, 1992.

The pages following this letter are comments from various branches within EPA and from the state of South Carolina. These comments should be addressed in the planning process for the RD and in the RD Work Plan.

If there are any questions, please call me at (404) 347-7791.

Sincerely,

Ralph O. Howard, Jr.
Remedial Project Manager

cc: Richard Haynes, SCDHEC
Steve Webb, RMT

10294335

Medley Farm Superfund Site
Gaffney, Cherokee County, South Carolina
Comments on Initial RD Deliverables 4/23/92

GENERAL COMMENTS

Technical Memorandum (TM) on Treatability Study:

1. The Agency agrees with the Steering Committee's contractor, RMT, that the RD effort can proceed without need for formal treatability studies. As stated in the TM, air stripping of volatile organics compounds (VOCs) in packed towers is a widely-used technology and its application is well understood. Soil vapor extraction (SVE) is also a widely accepted remediation technology for removing VOCs from soils of the vadose zone. The approach described in the TM involves installation of the SVE system and field testing of its performance. The field testing will determine if modification of the system is necessary. The design described in the TM allows flexibility for modification of the system as is necessary.

2. South Carolina and EPA recognize that meeting NPDES permit requirements will be difficult. Therefore RMT is encouraged to investigate other discharge options as well as NPDES. Regarding NPDES, discharge to Jones Creek itself, rather than to the tributary, may prove easier due to the higher dilution factor. EPA and SCDHEC will provide assistance as necessary to keep the schedule moving.

3. The jet pump wells described in Attachment A are acceptable for groundwater extraction purposes. However, the agitation created by this suction method makes them unacceptable for collection of VOC analytical samples. If the extraction wells are to be sampled for compliance purposes, another approved method must be used.

4. RI sampling revealed trace concentrations (6-13 parts per billion) of several VOCs in bedrock wells BW-105, 106 and 109. The design plan for the bedrock extraction wells must insure that they are properly located with regard to the plume, so that the full extent of it can be bracketed.

Field Sampling and Analysis Plan:

1. As noted on page 3-2, RI data indicates that the stream bordering the site on the east is a groundwater discharge area. Since groundwater the area to be investigated may discharge to this stream, surface water sample RW07 should be moved farther upstream, beyond the area potentially affected by site contaminants.

2. A field search should be made in the area identified in Plate

3-1 for any springs which may be discharging shallow groundwater. These may need to be included as ground-water sampling locations. Springs are locations of discharge from preferred ground-water flow routes, therefore, they are optimum locations for ground-water monitoring. As preferred ground-water flow routes they are also preferred contaminant transport routes.

3. If the "direct push" sampling method for obtaining shallow groundwater samples is not sucessful, a backup plan of action should be detailed in the FSAP.

SPECIFIC COMMENTS

Field Sampling and Analysis Plan:

1. Page 3-1, bottom
The reference to EPA's SOP is incorrect. It should be Environmental Compliance Branch Standard Operating Procedures and Quality Assurance Manual(SOPQAM). It should also be included in the references - Section 12.

2. Page 5-4, Section 5.3, decon procedure
The decontamination procedure should specify pesticide grade isopropanol. The isopropanol rinse should be maintained separately from the decon waters.

3. Page 5-6, Section 5.4.2
The mid-depth stream sampling procedure is acceptable except when a container such as the VOA vial is prepreserved.

4. Page 5-7, Section 5.5.1
Storing the bailer in the well above the water column is acceptable. However, the bailer should be decontaminated prior to use.

5. Page 5-12 and 13, Section 5.7.2
Samples of all well drilling materials, such as drilling muds, bentonite pellets, grouts, sand, etc, and potable water used during drilling should be collected for chemical analyses.

6. Page 5-13, Section 5.7.2, 3rd paragraph
The monitoring well casing and screen should be completely decontaminated before use. The stainless steel may be steam cleaned before other decontamination steps, but steam should not be used on the PVC.

7. Page 5-14, Section 5.7.2
In accordance with the SOPQAM, the concrete surface pad for a 2-inch well should be three feet by three feet by six inches and should extend down to the top of the grout. The grout

should extend from the bentonite seal within 2 feet of the ground surface or below the frost line.

8. Page 6-1, Section 6.1
The pH of the samples should be checked in the field.

9. Page 6-1, Section 6.1
Sample packing material should have both sorbent and cushioning capabilities.

10. Page 3-1, Paragraph 2
It is not clear how the decision will be made whether or not take surface water and sediment samples.

11. Page 5-8, Paragraph 3
The VOA sample should be collected first.

12. Page 5-13, Paragraph 3
It should be stated how the depths of the bedrock wells will be determined.

13. Page 5-14, Paragraph 1
Region IV SOP states that bentonite pellets should be allowed to hydrate for eight hours, or the manufacturer's recommended hydration time, whichever is longer.

14. Page 7-1, Section 7
The purpose of the flow measurements should be stated. At how many locations will measurements be taken? Section 3.0 does not mention any flow measurement of Jones Creek.

15. Page 9-4, Paragraph 1
Different decontamination procedures for water level meters have been established in Section 5.5.2. Which ones will be followed?

<u>QAPP</u>

16. Page 1-3, General
There is a minor inconsistency between bullet 2 and bullet 4. Bullet 2 states that only groundwater samples will be collected but bullet 4 states that groundwater, surface water, and sediment will be analyzed.

17. Pages 3-1 to 3-4, Section 3.0
This section does not address the parameter of comparability of data. This parameter needs to be addressed by this document.

18. Page 3-4, Section 3.5
Section 6.3, page 2 of USEPA Region IV SOP states pH should be reported to the nearest 0.1 standard unit.

19. Page 4-2, Table 4.1
Water samples collected for volatile organic compound analysis should be preserved with 4 drops of 1+1 HCL, 4°C.

20. Table 4-1
In order to avoid confusion on holding times, it is advisable to also explicitly state the actual holding times <u>from time of sample collection.</u> This would result in a total holding time of 14 days for VOCs; seven days for extraction of semi-volatiles (water); and 14 days for extraction of semi-volatiles (soil).

21. Table 4-1
USEPA Region IV generally requires that a Teflon-lined septum jar be used for collection of soil samples for VOA.

22. Table 4-1
It is recommended that the number of containers for each type of analysis be presented on Table 4-1. Generally, 2 or 3 40 ml VOA vials are required and 2 to 4 1-liter amber glass jars are required, depending on parameters analyzed. Are any medium/high concentration samples anticipated?

23. Page 5-5, Section 5.4
Include as an additional bullet:
- Analysis

24. Page 6-1, Section 6.0
The shipping procedure described (steps 1-7) is for environmental samples, not hazardous waste samples as stated in the second sentence.

25. Page 6-1 number 2
If possible, all sample containers should be placed in plastic (Zip-Lock) bags prior to being shipped.

26. Pages 10-1 and 10-2, Section 10
The analytical data should be independently validated according to procedures in "National Functional Guidelines for Organic Date Review" (June 1991).

27. Page 11-1, 3rd bullet
Rinsate blanks should also be used as a QC check on equipment that is cleaned in the laboratory before being transported to the field for sampling events.

28. Page 11-1, 5th bullet, Section 3, 3.1.4
States that the Matrix Spike/Matrix Spike Duplicate will be performed with the frequency specified in the CLP protocol. However, Section 11 refers only to a matrix spike sample and not a matrix spike duplicate. This discrepancy should be resolved.

29. Page 11-1, bottom
Glass (pyrex) pans or bowls are recommended for sample compositing equipment.

30. Page 14-1, Section 14.1
Validation procedures should be as per "National Functional Guidelines for Organic Data Review" (June 1991), and not as defined by the laboratory.

31. Page 14-1, Section 14.2
In this section the document states the data will be "validated" by the Laboratory QAO but in Section 10 the document states that the data will be "reviewed" by the Laboratory QAO. These are two different processes and this discrepancy needs to be resolved. The data should be independently validated according to procedures in "National Functional Guidelines for Organic Date Review" (June 1991).

32. Page 11-2, Section 11.0
The last paragraph should specify how the two MS/MSD sample locations will be selected. Ideally, these samples should be collected from a relatively uncontaminated or very slightly contaminated area.

33. Page 14-1, Section 14.2.1
Will anyone besides the analytical laboratory's Laboratory Quality Assurance Officer be involved in data validation? Will RMT's laboratory coordinator simply review the data packages?

34. Page 14-1, Section 14.2.2
This section should specify that the Technical Coordinator shall review field books, etc., periodically throughout the field activities as well as at the end of the field event.

<u>Health and Safety Plan (recommended changes):</u>

1. Section 6
EPA recommends that <u>both</u> the OVA and either an HNu or a Photovac Microtip be used for health monitoring.

2. Section 13
A map highlighting the route to the nearest hospital should be included in the plan.